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	ENTS CONSIDERED TO BE RELEVANT					
Category •	gory • Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.			
Α	TAKADA TOSHIYUKI ET AL: "Induction of apoptosis by stomach cancer-associated protein-tyrosine phosphatase-1." THE JOURNAL OF BIOLOGICAL CHEMISTRY. UNITED STATES 13 SEP 2002, vol. 277, no. 37.		1-15			
	13 September 2002 (2002-09-13), 34359-34366, XP002230142 ISSN: 0021-9258 the whole document	pages				
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X Further documents are listed in the continuation of box C. Patent family members are listed in annex.						
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C.(Continu	etion) DOCUMENTS CONSIDERED TO BE RELEVANT	<u> </u>	
Category • Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.	
A	NOGUCHI T ET AL: "Inhibition of cell growth and spreading by stomach cancer-associated protein-tyrosine phosphatase-1 (SAP-1) through dephosphorylation of pl30cas." THE JOURNAL OF BIOLOGICAL CHEMISTRY. UNITED STATES 4 MAY 2001, vol. 276, no. 18, 4 May 2001 (2001-05-04), pages 15216-15224, XP002230143 ISSN: 0021-9258 cited in the application page 15223	1–15	
Α	SEO YASUSHI ET AL: "Overexpression of SAP-1, a transmembrane-type protein tyrosine phosphatase, in human colorectal cancers." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 231, no. 3, 1997, pages 705-711, XP002230144 ISSN: 0006-291X cited in the application the whole document	1-15	
A	MATOZAKI T ET AL: "MOLECULAR CLONING OF A HUMAN TRANSMEMBRANE-TYPE PROTEIN TYROSINE PHOSPHATASE AND ITS EXPRESSION IN GASTROINTESTINAL CANCERS" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 269, no. 3, 21 January 1994 (1994-01-21), pages 2075-2081, XP000606151 ISSN: 0021-9258 cited in the application the whole document	1-15	
A	RAVINDRA MAJETI AND ARTHUR WEISS: "Regulatory mechanisms for receptor protein tyrosine phospatase" CHEM. REV., vol. 101, 2001, pages 2441-2448, XP002230145 the whole document	1-15	
Α	ANDERSEN JANNIK N ET AL: "Structural and evolutionary relationships among protein tyrosine phosphatase domains." MOLECULAR AND CELLULAR BIOLOGY, vol. 21, no. 21, November 2001 (2001-11), pages 7117-7136, XP002230146 ISSN: 0270-7306 the whole document	1–15	